

# **Beneficial Use of CCPs in Maryland in Large-Scale Engineering Applications**

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## **Abstract**

The Coal Combustion Product (CCP)/Acid Mine Drainage (AMD) initiative spearheads Maryland's efforts toward full utilization of CCPs from its coal-fired power plants. The Initiative is a joint effort with private industry to demonstrate the beneficial use of CCPs to restore abandoned, underground coal mines in Western Maryland. Currently, Maryland's mining, construction, and cement industries use about half of the State's annual production of 1.4-million tons of CCPs. Building upon the success of the Initiative, Maryland's envisions broadening its demonstration projects to more massive geotechnical applications to provide a market for the remainder of current and future CCP production. Work performed in other states and confirmed by the Initiative at the Winding Ridge Demonstration Project, which has now been monitored for over five years, provide a solid scientific and engineering basis for proceeding with larger demonstration projects.

Demonstration projects underway and planned in Maryland focus on beneficially using CCPs in geotechnical engineering applications that have traditionally used Portland cement. The goal of these demonstration projects is to develop a more complete understanding of the physico-chemical properties and economics of handling CCPs within Maryland's power plant, mining and construction industries. These demonstrations will also promote the development of cost-effective methods for CCP handling and transportation to ultimately encourage the use of CCPs as the material of choice for massive scale geotechnical projects.

This paper presents and overview of the Maryland CCP demonstration program, and more detailed information regarding non-mine related projects.

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